REMARKS

The Office action mailed November 10, 2003, in which the Examiner rejected pending claims 1-23 has been reviewed, and certain amendments have been made to the application. In view of the following remarks and amendments, Applicants respectfully submit that the application is in condition for allowance. Upon entry of this amendment, claims 1-12 have been deleted and claims 13-23 are pending.

35 U.S.C. §103

Claims 1-4, 6, 7,13-16 and 20-22 were rejected under 35 U.S.C. 103 as being unpatentable over Black et al. (US 6,494,305) in view of Heckman (US 4,708,066).

The examiner cited Black et al. for a mounting apparatus for attaching a transponder, which serves as an RF tag, to a conveyor trolley having a wheel, but acknowledged that Black et al. does not fairly suggest that the mounting apparatus having a recess formed between the hub and the outer rim wherein the block being shaped to be received within the recess. The examiner, however, cites Heckman as teaching a wheel having a hub, an outer rim, and a web connecting the outer rim to the hub, wherein the web comprises a plurality of spokes separated by openings, the spokes having a thickness less than the thickness of the outer rim and a recess formed between the hub and the outer rim. The examiner then concludes that it would have been obvious to incorporate the recess between the hub and the outer rim of Heckman into Black et al., such that the block containing the transponder/RF tag of Black et al. was secured within the recess of Heckman to prevent separation, loosening, or falling of the block, and, thus providing Black et al. a more secure, compact, and aesthetic system.

Applicant respectfully traverses this rejection. As amended, claims 13-23 not only require that the wheel has a recess formed between the hub and that the block is shaped to be received therein, but further requires that the transponder tag is mounted therein. As the examiner correctly notes, this is **not** taught nor suggested by any of the cited references.

Heckman discloses a "tag assembly" (or rear set of rail wheels). Each rear rail guide wheel of the "tag assembly" is adapted for assembly with an associated spare road wheel 24 and moveable in response to up and down movement of the entire tag assembly 22. (Col. 3, ll. 4-9). Heckman does not teach nor suggest the use of a transponder/RF tag or anything remotely similar thereto. Heckman's wheel is designed for a vehicle that can be used on both train rails and the highway. Thus, Heckman's wheel assembly discloses a rear rail guide wheel surrounded by a spare road wheel that, in turn, has a recessed web section. Nothing similar to a transponder/RF tag is mounted in or about the recessed web section of the spare road wheel, much less mounted therein for protection from separation, loosening, or falling.

Heckman fails to teach mounting a transponder or any signal transmitting device in the wheel recess. Black et al. fails to teach the recess or mounting a transponder to the wheel. The examiner disregards the lack of any reference teaching the placement of a transponder on a trolley wheel and states that it would have been obvious by an artisan skilled in the art.

In order to establish a case of prima face obviousness, three basic criteria must be met:

1) there must be some suggestion or motivation to combine the references;
2) there must be a reasonable expectation of success; and
3) the **prior art references** must teach or suggest all of the claim limitations.

The Examiner's case for obviousness fails every one of these criterion. There is no suggestion or motivation to combine Black's carcass tracking apparatus mounted to a trolley with Heckman's Combination Rail and Highway vehicle. Before obviousness may be established, the Office Action **must show specifically the principle**, known to one of ordinary skill that suggests the claimed combination.[1] In other words, the Examiner **must explain** the reasons one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention.[2] The examiner states that all that was missing in Black et al. was the claimed recess (applicant disagrees with this and that is further discussed below) and thus Heckman is a proper reference. This is improper. The office action fails to show either a suggestion in the art or a compelling motivation based sound scientific principles to combine references and thus the 35 U.S.C. §103 rejection is improper.[3]

Further, there is no reasonable expectation of success in combining the rear rail wheels with Black's carcass tracking apparatus. The wheels differ vastly in size, structure and functionality.

Finally and perhaps most importantly, **no reference cited by the examiner teaches or suggests the limitation of an RF tag mounted in a recess of the wheel for transmitting an identifying signal**. This limitation is required in all the remaining pending claims. Black teaches mounting a transponder on the metallic body that supports the wheel and not the wheel itself. Heckman provides no teaching nor any suggestion on mounting a transponder anywhere. A statement by the examiner that this limitation is

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[1] In re Lee, 277 F.3d 1338, 1343 (Fed. Cir. 2002).
[2] Id.
[3] It appears that the examiner searched for the term "tag assembly" and since Heckman's real rail wheels are called tag assemblies, the examiner relied on Heckman. This reliance is improper

obvious to a person skilled in the art does not meet the requirements for prima facie obviousness.

With respect to remaining claims 17-19 and claim 23, the examiner rejected these claims under 35 U.S. C. 103(a) as being unpatentable over Black et al. as modified by Heckman in the same manner as applied by the examiner with respect to claims 1, 4, and 13. Here, the examiner notes that Black et al. as modified by Heckman fails to teach or fairly suggest that the block is securable to the web of the wheel by a clamping member that is a second block of material, but suggests that Mitchell (US 3,708,847) teaches the use of a clamping means comprising four clamp plates secured to spokes of the web of a wheel via a recess, and, thus, that it would have been obvious to incorporate the clamping member of Mitchell into Black/Heckman to provide Black/Heckman with a more secure system to hold/secure the block containing/having the tag to the wheel so as to prevent separation of the block from the wheel.

As noted above by Applicant, Black et al. and Heckman are disparate references that cannot properly be combined. Mitchell discloses a method for mounting pneumatic tires on vehicle wheels. A bead portion 16 of the wheel well 6 forms a means by which the rim and tire assembly may be demountably secured to the wheel center by incorporating clamp means 18 to engage the bead portion 16. The clamping means 18 comprises four clamp plates 22 secured to one end of each wheel spoke 20 to engage the outer side of the bead portion 16 of the wheel well portion 6 so as to grip the bead portion 16 between the clamp plate and the spoke in the manner of vice-jaws. Mitchell fails for the same reason as Heckman fails. Mitchell does not teach the use of a recess for any transponder, tag, or any identification purposes. It simply teaches the use of a clamp to grip a bead portion of the well of a wheel to which a rim and tire assembly may be

mounted. There is no suggestion in Mitchell to combine it with Black et al. or Heckman, nor any suggestion in Black et al. or Heckman to combine either with Mitchell so as to prevent an RF tag/responder from separating, falling, or loosening.

Thus, Applicant respectfully submits that it would not have been obvious to incorporate the clamping member of Mitchell with Black et al./Heckman to provide a more secure system to secure a block containing a RF Tag/transponder. Here again, to combine these references would be improper hindsight reconstruction and no reference teaches or suggests the claimed limitation that the RF transponder, which is embedded in a block of material, is mounted to the wheel itself.

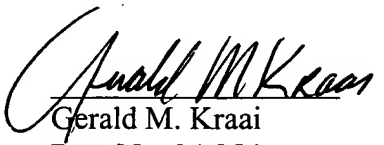
The examiner rejects claims 5 and 10 under 35 U.S.C. 103(a) as being unpatentable over Black et al. as modified by Heckman as applied to claims 1 and 4 (discussed above) in view of Hoffman et al. (US 5,156,533). These claims have been deleted without prejudice to their patentability and thus these rejections are moot

For the reasons stated above, the invention of the instant application is not obvious in view of Black et al./Heckman -- Heckman containing no teaching about RF tags or trolley identification means, and neither Black et al. nor Heckman contain any suggestion that they be combined. Similarly, Hoffman et al. contains no teaching about RF tags or trolley identification means, nor is there any suggestion in Hoffman et al. that it be combined with Black et al. or Heckman to mount a plastic block containing a transponder/RF tag within a recess in a trolley wheel to prevent separation, loosening, or falling of the block.

For all of the above reasons, Applicant thus requests that this application pass to issue.

Respectfully submitted,

David Vande Berg

By 
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